## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No.:

09/491,721

Filed:

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For:

TEAR RESISTANT BLASTIC LAMINATE

AND METHOD OF FORMING

Art Unit:

1771

Examinera

Jeremy R. Pierce

Atty Dkt.:

31358-211US

Commissioner for Patents PO Box 1450 Alexandria, VA 22313-1450

## DECLARATION OF JAMES W, CREE, SUBMITTED IN SUPPORT OF APPLICANT'S RESPONSE

- 1. I am co-inventor of the present invention.
- 2. I am familiar with the subject matter and general area of the application.
- 3. I have reviewed the principal reference cited by the Examiner in this case, Morman (U.S. Patent No. 5,336,545) ("Morman.")
- Morman operates by tensioning the nonwoven prior to bonding. The nature of the tensioning, using a drive roller arrangement, will weaken the nonwoven material.
- 5. I have also reviewed the Examiner's Office Action dated November 9, 2004.
- 6. At paragraph 8 of the Office Action, the Examiner asserts, on behalf of the Office, that the nonwoven material in Morman and the present claims may be similar (for example, polypropylene.) The Examiner also asserts that the production steps of

Morman and the present claims are similar. Therefore, the Examiner goes on the assert, any nonwoven, and in turn any composite, of both the present claims and Morman, will have similar tear resistance values.

- 7. With all due respect to the Examiner, he is incorrect. The production steps are not similar, and any nonwoven and composite will not have similar tear resistance values.
- 8. The Morman tensioning system will pull the nonwoven fibers apart, and thus weaken the bonds between the fibers, and in turn weaken the nonwoven as well as any composite.
- In contrast to Morman's tensioning, a method as shown by the present claims (e.g., a
  consolidation-type method) will actually strengthen any nonwoven and composite.
- 10. Thus the tear resistance of any nonwoven and composite of the present claims is enhanced rather than diminished as in the Morman reference.
- 11. Any enhancement of a composite may be even greater when more than one nonwoven is used to sandwich an elastic, as shown for example in the present claims. That is, for example, by using a consolidated nonwoven on either side of an elastic, tear resistance of the resulting composite is greater than using a single nonwoven. Claim 1, for example, reflects that combined strengthening, where it teaches two separate nonwovens, a first having a force to break of greater than 1500 g/in., and a second having a ultimate force to break value substantially equal to the first, with the combined laminate having a ultimate force to break of at least 3000 g/in.
- 12. In contrast, Morman's use of weakened nonwoven(s) (one or more treated with his tensioning,) would, in all probability, weaken a composite substantially. For example, if Morman sandwiched an elastic with his weakened nonwovens, the

weakened nonwovens on either side might have matching weakened regions (where the weakened libers occur) and thus provide little if any additional tear resistance to the clastic. At the least Morman's composite has some, indefinite, weakened regions.

- 13. Therefore, as claimed herein, when two nonwovens are used, any composite is likely to be stronger than a single nonwoven. When more than two are used, even more strengthening may be provided.
- 14. Morman, on the other hand, may be more likely to weaken the composite as multiple layers are used.
- 15. Thus, the production steps of the present claims and Morman are not similar, and any nonwoven and composite provided by the present claims and Morman will not have similar tear resistance values.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under \$1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

2/02/05 Date

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